RECORD OF ENVIRONMENTAL CONSIDERATION

1. Description and location of proposed action:

The objective of the project's effort is the development of the single-frequency 1064 nm Pump Laser transmitter (hereafter referred to as the Pump Laser) required for the Global Ozone Lidar Demonstrator (GOLD) instrument. The 1064 nm Pump Laser output shall be frequency converted to provide the 532 nm and 355 nm outputs required for the GOLD system. The project shall fabricate the preamplifier system and amplifier systems that will be used to achieve the required final output energies based on previous designs for NASA related laser efforts. The project shall perform final integration of the total laser system including the preamplifier, amplifiers, harmonic generators, chiller system, and all related hardware. The project shall identify and procure a COTS seed laser system for integration with the Pump Laser. The Seed laser shall be external to the Pump Laser and fiber coupled to allow flexibility in mounting options. The project shall follow the performance verification plan employed for the High Spectral Resolution Lidar (HSRLYOzone Differential Absorption Lider (DIAL) Pump Laser Transmitter under Contact # NNL06AA17C. The Contractor shall deliver test results verifying the laser transmitter meets the required specifications. The Contractor shall demonstrate the integrated system to LaRC at his facility. LaRC will perform/witness the acceptance testing "in-place" at the Contractor's facility. After acceptance by LaRC, the contractor shall transfer (ship) the system to LaRC.

The project manager for this is Craig Cleckner. (757) 864-7048.

- 2. The duration of proposed action is to occur from October 2009 to October 2010.
- 3. The cost of proposed action is \$700,000.
- 4. It has been determined that the above action qualifies for Categorical Exclusion #3 under 14 CFR 1216.305 (d), which describes NASA's Criteria for determining if an environmental assessment under NEPA is needed and has no special circumstances which would suggest a need for an Environmental Assessment. Specifically 14 CFR 1216.305 (d) (2) provides for a Categorical Exclusion for Research and Development activities in Space and Terrestrial Applications.

Determination: This action is categorically exempt from further environmental assessment based on the information provided in the project description. If there are changes to the location and scope or other aspects of the project, then this document may be invalidated and the action may be reassessed.

Project Manager

Branch

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NONCONCUR

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